

Miscellaneous

Applicant acknowledges with gratitude the withdrawal of the rejection under 35 U.S.C. §§ 102 and 103 of claims 30, 36-38, 48, 50 and 54-55 over the Dartey et al. reference. Applicant also acknowledges with gratitude the indication that the subject matter of claims 36, 44, 50, 60 and 64-65 is allowable.

The Rejection under 35 U.S.C. § 103(a)

Claims 30-35, 37-39, 41-43, 45-49, 51-56, 58-59, 61-63 and 66-71 have also been rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Engelbrecht in view of the Encyclopedia and U.S. Patent No. 5,629,036, issued to Yanetani et al. (hereinafter "Yanetani"). This rejection is respectfully traversed and reconsideration is requested for the reasons, which follow.

Engelbrecht relates to a microwaveable bread product made from dough which may include flour, water, leavening agent, about 7 to about 15 percent by weight of shortening, based on the total weight of flour, and about 2.0 percent by weight of fiber, based on the total weight of the flour. Among the materials which are mentioned for use as fiber in the Engelbrecht patent are oat bran, wheat bran, soy polysaccharide, psyllium mucilloid, methyl cellulose, and polydextrose. See Engelbrecht, col. 3 ln 55-58.

Engelbrecht provides a broad, generic disclosure of a number of parameters (i.e., type of polydextrose, type of fiber, solubility of fiber, and amount of fiber and amount of flour), which could be potentially manipulated to arrive at something similar to the present invention, as claimed in the amended claims. Specifically, to arrive at the present invention in view of Engelbrecht, the skilled person would have to do the following:

- 1) Select polydextrose as the fiber,
- 2) Select water-soluble polydextrose instead of water-insoluble polydextrose, and
- 2) determine that the water-soluble polydextrose should be used in an amount of 2-5% by weight, based on the flour weight.

The Examiner takes the position that a skilled person would select water-soluble polydextrose on the basis of the following statement made in Engelbrecht at col. 3, ln 53-55:

It is also believed that soluble and insoluble fibers, naturally and synthetic fibers work equally well as a supplemental fiber.

However, with respect to polydextrose, this statement is pure speculation on the part of Engelbrecht since no tests were conducted using polydextrose, either water-soluble or water-insoluble. In addition, Engelbrecht provides absolutely no reasoning, evidence or arguments in support of this statement. Thus, the skilled person reading this statement immediately understands that this statement is pure speculation on the part of Engelbrecht and therefore would not be led by this statement to select any particular type of polydextrose.

Another reference of record, Yanetani, teaches away from the use of water-soluble polydextrose in bakery foods such as bread. In col. 1 at lines 58 to 61, Yanetani plainly states that “[i]n the case of adding low viscosity materials [such as water-soluble polydextrose to bread] ... volume of the product obtained is reduced eventually resulting in a disadvantage of tastelessness.” As the Examiner noted in the Office Action, polydextrose is one of the low viscosity materials referred to by Yanetani at col. 1, lines 58-61, as can be seen from col. 1, lines 39-40 of Yanetani. That col. 1, lines 58 to 61 refers to addition of materials to bread is apparent from col. 1, lines 27-32 of Yanetani.

Polydextrose is often referred to as polyglucose (see e.g. col. 4, lines 61-62 of Dartey and col. 1, lines 15 and 24 of U.S. Patent no. 4,042,714 (cited in Dartey at col. 5, line 58 to col. 6, line 13). Dartey teaches that, “The soluble forms of polyglucose and polymaltose are not sweet.” See col. 5, lines 9-10 of Dartey. Dartey also teaches that:

The insoluble polyglucoses, it is taught, are useful as flour substitutes in cakes, cookies, breads, pastries, and other baked products involving flour derived from wheat, corn, rice and the like.

See col. 5, lines 18-22 of Dartey. Dartey further teaches that,

According to U.S. Pat. No. 4,042,714, the water-soluble forms of modified polydextrose disclosed in U.S. Pat. No. 3,876,794 and in U.S. Pat. No. 3,766,165 function as a replacement for sucrose in many foods. However, because of their solubility, they cannot function as flour replacements.

See col. 6, lines 3-9 of Dartey.

Turning to the composition of Engelbrecht, it can be seen from Table I, that the composition, including fiber, contains 97.1 parts by weight of flour and 8.5 parts by weight of sugar. The composition of Table II of Engelbrecht contains similar amounts of flour and sugar. Engelbrecht contemplates use of 15% by weight, based on the weight of flour, of polydextrose. This amounts to use of nearly 15 parts by weight of polydextrose in the compositions of Tables I-II of Engelbrecht. Clearly,

Engelbrecht does not contemplate replacement of sugar with polydextrose since there are only 8.5 parts by weight of sugar and up to about 15 parts by weight of polydextrose can be used, i.e. nearly twice as much polydextrose as sugar. As a result, for the larger amounts of polydextrose contemplated by Engelbrecht there is not enough sugar in the bread to be replaced by all of the polydextrose to be used.

Also, a skilled person would not replace the sugar of Engelbrecht with polydextrose since this would mean replacement of all or a significant portion of the sugar with polydextrose, which according to col. 5, lines 9-10 of Dartey is not sweet. As a result, the bread of Engelbrecht would lose all or a significant portion of its sweetness since the very sweet sugar would be replaced by the non-sweet soluble polydextrose. This would appreciably change the taste characteristics of the Engelbrecht bread product and thus would be undesirable.

Moreover, it can be seen from the teachings of Engelbrecht, that Engelbrecht does not intend to replace sugar with polydextrose since Engelbrecht merely takes the existing bread formulation and adds 2-15% of polydextrose thereto. The result of this teaching of Engelbrecht is mostly the replacement of flour. This can be seen by an analysis of Table I of Engelbrecht.

More specifically, composition 1 of Table I of Engelbrecht, including fiber, contains a total of 209.5 parts by weight of ingredients, and, excluding fiber, contains a total of 199.8 parts by weight of ingredients. Thus, prior to addition of fiber, composition 1 of Engelbrecht contains 97.1 parts by weight flour, divided by 199.8 total parts by weight, or 48.6% by weight of flour. After addition of fiber, composition 1 of Engelbrecht contains 97.1 parts by weight flour, divided by 209.5 total parts by weight or 46.3% by weight of flour. Similarly, prior to addition of fiber, composition 1 of Engelbrecht contains 8.5 parts by weight sugar divided by 199.8 total parts by weight, or 4.3% of sugar. After addition of fiber, composition 1 of Engelbrecht contains 4.1% by weight of sugar. Thus, the method of adding fiber to composition 1 of Engelbrecht results in replacement of 2.3% by weight of flour and only 0.2% by weight of sugar. As a result, the skilled person choosing the type of polydextrose to employ would select the type used to replace flour rather than the type used to replace sugar since the methodology of Engelbrecht results in a larger percentage reduction in the amount of flour present as compared to the percentage reduction in the amount of sugar present.

To sum up, the skilled person must choose to employ water-soluble polydextrose in the composition of Engelbrecht in order to arrive at the subject matter of the claims in the present application. The evidence of record offers the following information that the skilled person would consider when choosing the type of polydextrose to use in the composition of Engelbrecht:

1. A totally unsubstantiated, speculative statement that Engelbrecht believes that soluble and insoluble fibers would work equally well.
2. A teaching in Yanetani that addition of water-soluble polydextrose to bread results in the disadvantage of tastelessness.
3. A teaching in Dartey that water-soluble polydextrose is unsuitable as a flour substitute combined with the fact that Engelbrecht effectively replaces a much larger percentage of the flour in the bread than the percentage of the sugar in the bread that is replaced.
4. A teaching in Dartey that water-soluble polydextrose (polyglucose) is not sweet which indicates that even if the skilled person wanted to replace the sugar of Engelbrecht with water-soluble polydextrose, the overall sweetness of the bread would be significantly reduced thereby appreciably changing the taste characteristics of the bread.
5. The fact that Engelbrecht contemplates use of significantly larger quantities of polydextrose than the total amount of sugar in the bread thereby indicating that it cannot be the intention of Engelbrecht to replace sugar with polydextrose since there is not enough sugar in the composition of Engelbrecht to replace with the amounts of polydextrose that are contemplated for use in Engelbrecht.

Accordingly, in view of these facts, the skilled person would be overwhelmingly in favor of using water-insoluble polydextrose to avoid tastelessness in the food caused by addition of water-soluble polydextrose (according to Yanetani) and by replacement of sweet sugar with non-sweet water-soluble polydextrose (according to Dartey), and to provide an acceptable flour replacement (according to Dartey) since, in effect, Engelbrecht is replacing more flour with polydextrose than any other ingredient in the composition, as discussed above. Engelbrecht's speculative, unsubstantiated statement would not be sufficient to sway a skilled person to go against the four other persuasive reasons for selecting water-insoluble polydextrose as the fiber and thus the skilled person, when considering the evidence of record in the present application, would select water-insoluble polydextrose as the fiber of Engelbrecht and thus would not arrive at the present invention. Therefore, independent claims 30, 39, 48 and 56 are not obvious in view of the cited references.


Claims 31 to 35, 37 to 38, 41 to 43, 45 to 47, 49, 51 to 55, 58, 59, and 61 to 63 depend, directly or indirectly, from independent claims 30, 39, 48, and 56. Because independent claims 30, 39, 48, and 56 are not obvious in light of the cited references, it follows by statute that claims 31 to 35, 37 to 38, 41 to 43, 45 to 47, 49, 51 to 55, 58, 59, and 61 to 63 are also not obvious. Accordingly, Applicant

respectfully requests that the rejection of these claims under 35 U.S.C. § 103(a) also be withdrawn upon reconsideration.

Conclusion

In view of the foregoing remarks, Applicants respectfully submit that all of the pending claims are in condition for allowance and respectfully request a favorable Office Action so indicating.

Respectfully submitted,


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